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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/417,990	10/13/1999	CHRISTOPHER J. LOVETT	MSI-383US	8254
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LEE & HAYES PLLC 421 W RIVERSIDE AVENUE SUITE 500 SPOKANE, WA 99201				
EXAMINER QUELER, ADAM M				
ART UNIT		PAPER NUMBER		

2178

DATE MAILED: 05/20/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/417,990

Applicant(s)

LOVETT ET AL.

Examiner

Adam M Queler

Art Unit

2178

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 14-17, 22 and 29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 14-17, 22 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is responsive to communications: Amendment D and RCE filed 3/3/2004
2. Claims 1-4, 14-17, 22 and 29 are pending in the case. Claims 1, 14, and 17 are independent claims.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/3/2004 has been entered.

Claim Rejections - 35 USC § 103

4. **Claims 1, 2, 4, 14, 16, 17 and 22 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Dougherty, "XML Authority Ends Waiting Games for Schema Developers," and further in view of XML Authority™ by Extensibility Inc, hereinafter Authority, and further in view Applicants Admitted Prior Art.**

Regarding independent claim 1, Dougherty teaches converting schema elements into DTD's. Dougherty discloses an editor capable of saving schemas as DTD's (p. 1, para. 4). Dougherty taken as a whole generally describes a product that serves an editor, which allows the user to be able to commit one of the many schema types, while maintaining compatibility with others.

Dougherty does not teach parsing the document into schema and data elements. Authority teaches, "XML Authority imports schema information residing in existing data structures and documents," including XML documents (p. 3). In order to import the schema information, and

since XML documents are text documents, inherently they must be parsed in to data and schema elements. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Dougherty and Authority, for the purpose of not limiting the user to any particular schema implementation (Dougherty, p. 1, para. 4 and Authority, p. 3, "Diverse..."). Additionally, they are both descriptions of the same product.

Applicant admits that DTDs were used to validate data elements (p. 6, ll. 17-21).

Applicant also admits that, in prior art systems, upon validation a data tree was constructed (p. 6, 13-16). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the conversion of Authority with the prior art validation system of Applicant's Admitted Prior Art since a DTD's primary use was to validate XML documents (Dougherty, p. 2, para. 1), it would have been logical to use a system that was known in the art at the time of the invention to facilitate the validation. It would have been further obvious to use this approach since it would not limit the user to any particular schema implementation (Dougherty, p. 1, para. 4 and Authority, p. 3, "Diverse...").

Regarding dependent claim 4, the computer readable medium for performing the method of claim 1 is rejected under the same rationale.

Regarding independent claim 14, the architecture for performing the method of claim 1 is rejected under the same rationale.

Regarding dependent claim 16, the computer readable medium for performing the method of claim 1 is rejected under the same rationale.

Regarding dependent claim 17, the client/server for performing the method of claim 14 is rejected under the same rationale.

Regarding independent claim 22, the system for performing the method of claim 1 is rejected under the same rationale.

Regarding dependent claim 2, Dougherty teaches converting from schema to DTD as explained in claim 1. Inherent in converting is constructing the DTD objects. Official Notice is taken the calling a method in an API was a well-known method of executing a computer task. It would have been obvious to one of ordinary skill in the art at the time of the invention to call an API method to construct the DTD to provide an interface for programmers.

Regarding dependent claim 29, Dougherty does not explicitly disclose a node factory but does teach that DTD's are used for validation (Dougherty, p.2, para. 1). Applicant admits it was known in the prior art to use a validation node factory to evaluate whether the data elements comply with constraints set forth in the DTD objects (p. 6, 12-13). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the conversion of Authority with the prior art validation system of Applicant's Admitted Prior Art since a DTD's primary use was to validate XML documents (Dougherty, p.2, para. 1), it would have been logical to use a system that was known in the art at the time of the invention to facilitate the validation. It would have been further obvious to use this approach since it would not limit the user to any particular schema implementation (Dougherty, p. 1, para. 4 and Authority, p. 3, "Diverse...").

5. Claims 3 and 15 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Authority and Applicant's Admitted Prior Art as applied to claims 1 and 14 above, and further in view of Hickman et al. (USPN 6564252—filed 3/11/1999).

Regarding dependent claims 3 and 15, Authority is silent as to tables. Hickman et al. (Hickman) discloses tables of schemas (col. 8, ll. 65-67). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Hickman, Authority and Applicant's Admitted Prior Art in order to provide a place to store the schemas.

Response to Arguments

6. Applicant's arguments filed 7/28/2003 have been fully considered but they are not persuasive.

Regarding Applicant's remarks on pp. 5-8, regarding claim 1:

7. Applicant alleges that Authority does not teach converting schemas into DTD's but rather importing schema information from DTD's. This argument is somewhat moot in light of the new rejections, however, is still relevant. From the substance of the interview of 2/19/2004 the Applicant disagreed that the references taught schemas. While there is a type of schema in development at the time of the invention by the W3C, there are many types of schemas (Dougherty, p. 1, para. 1), and the claim language does not distinguish between them. Even a DTD is considered a schema for a XML document. Assuming, *arguendo*, that the claims were directed a singular type of schema, Dougherty suggests compatibility with "prevalent schema proposals" which included the W3C draft. Authority also teaches compatibility. Applicant uses the table on page 3 to suggest that Authority only teaches reading DTD's. The table only shows the types of documents schemas may be found in. One of those is XML documents, which is how schemas were stored and also that it was fully compatible with the XML 1.0 specification of schema. Regardless, importation from one schema format, and saving it as a DTD is deemed as "conversion."

8. Applicant's arguments regarding the inherency of parsing have been considered but are moot in view of the new grounds of rejection.

9. Applicant alleges that there was no admission of XML schema being converted to DTD objects. The Office has not suggested such an admission. Applicant also alleges that there was no admission of data elements being validated using the DTD objects. In the same paragraph Applicant quotes a part of the background that says almost the same thing: "The validation node factory 30 receives the XML data events from the namespace node factory 24 and uses the DTD objects 32 to evaluate whether the data complies with certain constraints defined by the DTD objects." The Office considers "evaluat[ing] whether the data complies with certain constraints" to be the same thing as validation, and it is unclear what the Applicant is alleging is the difference.

10. Applicant alleges that the remainder of the claims is allowable in view of the arguments of claim 1. Those arguments have been addressed above and in the new grounds of rejection.

Conclusion

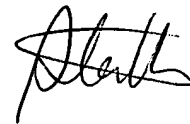
11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US005915259A to Murata

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam M Queler whose telephone number is (703) 308-5213. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather R Herndon can be reached on (703) 308-5186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AQ



STEPHEN S. HONG
PRIMARY EXAMINER